AO 106 (Rev. 04/10) Application for a Search Warrant (Modified: WAWD 10-26-18)

UNITED STATES DISTRICT COURT

for the

Western District of Washington

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APPLICATION FOR A SEARCH WARRANT		
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Nata	alie Leavitt, Special Agent, FBI	
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The above-named agent provided a sworn statement attesting to the truth of the foregoing affidavit by telephone.		
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I, Natalie Leavitt, being duly sworn on oath, depose and state:

INTRODUCTION AND AGENT BACKGROUND

- 1. I am a Special Agent with the Federal Bureau of Investigation (FBI) and have been so employed since 2022. I am currently assigned to the Bellingham Resident Agency of the Seattle Division and the FBI's Northwestern Washington Safe Trails Task Force ("NWSTTF"). I have attended several training courses including but not limited to Human Trafficking Investigations in September of 2024 and Human Trafficking in Indian Country in April of 2023. My primary responsibilities as a Special Agent include investigations involving violent crimes and other federal crimes on the Indian reservations in Northwest Washington. My duties as a special agent also include the investigation of those engaged in the sexual exploitation of children including the production, attempted production, distribution, and possession of child pornography. I have observed and reviewed numerous examples of child pornography, as defined in 18 U.S.C. § 2256(8), in various forms of media, including media stored on digital media storage devices such as computers, iPhones, etc. I have participated in the execution of numerous search warrants which involved child exploitation and/or child pornography offenses.
- 2. I am submitting this affidavit in support of an application under Rule 41 of the Federal Rules of Criminal Procedure for a warrant to search the SUBJECT FILES associated with CyberTipline Report 197075910, more fully described in Attachment A, for the things specified in Attachment B to this Affidavit, for the reasons set forth below.
- 3. The warrant would authorize a search of the SUBJECT FILES for evidence, fruits, and instrumentalities of violations of 18 U.S.C. § 2252(a)(2) (Receipt or Distribution of Child Pornography) and 18 U.S.C. § 2252(a)(4)(B) (Possession of/Access with Intent to View Child Pornography) (the TARGET OFFENSES).
- 4. The facts set forth in this Affidavit are based on my own personal knowledge; knowledge obtained from other individuals during my participation in this investigation, SA LEAVITT AFFIDAVIT 1 USAO# 2024R00700

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including other law enforcement officers; review of documents and records related to this investigation; communications with others who have personal knowledge of the events and circumstances described herein; and information gained through my training and experience and my discussions with other law enforcement agents who have experience in investigating cases involving child sexual exploitation.

5. Because this affidavit is submitted for the limited purpose of establishing probable cause in support of the application for a search warrant, it does not set forth each and every fact that I or others have learned during the course of this investigation. I have set forth only the facts that I believe are relevant to the determination of probable cause to believe that evidence, fruits, and instrumentalities of violations of the TARGET OFFENSES.will be found within the SUBJECT FILES.

BACKGROUND ON NCMEC AND CYBERTIPS

- 6. I know based on my training and experience, that Electronic Service Providers ("ESP") and/or Internet Service Providers ("ISP," collectively ISP) typically monitor their services utilized by subscribers. To prevent their communication networks from serving as conduits for illicit activity and pursuant to the terms of user agreements, ISPs routinely and systematically attempt to identify suspected depictions of minors engaged in sexually explicit conduct that may be sent through its facilities. Commonly, customer complaints alert them that an image or video file being transmitted through their facilities likely contains suspected depictions of minors engaged in sexually explicit conduct.
- 7. When an ISP receives such a complaint or other notice of suspected depictions of minors engaged in sexually explicit conduct, they may employ a "graphic review analyst" or an equivalent employee to open and look at the image or video file to form an opinion as to whether what is depicted likely meets the federal criminal definition of depictions of minors engaged in sexually explicit conduct found in 18 USC § 2256, which is defined as any visual depiction, including any photograph, film, video, picture, or computer or computer-generated image or picture, whether made or produced by electronic, mechanical, or other means, of sexually explicit conduct, where: (A) the production of such visual depiction involves the use of a minor engaging in sexually explicit conduct; (B) such visual depiction is a digital image, computer image, or computer-generated image that is, or is indistinguishable from, that of a minor engaging in sexually explicit conduct; or (C) such visual depiction has been created, adapted, or SA LEAVITT AFFIDAVIT - 2 USAO# 2024R00700

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- modified to appear that an identifiable minor is engaging in sexually explicit conduct. If the employee concludes that the file contains what appears to be depictions of minors engaged in sexually explicit conduct, a hash value of the file can be generated by operation of a mathematical algorithm. A hash value is an alphanumeric sequence that is unique to a specific digital file. Any identical copy of the file will have exactly the same hash value as the original, but any alteration of the file, including even a change of one or two pixels, results in a different hash value. Consequently, an unknown image can be determined to be identical to an original file if it has the same hash value as the original. The hash value is, in essence, the unique fingerprint of that file, and when a match of the "fingerprint" occurs, the file also matches. Several different algorithms are commonly used to hash-identify files, including Message Digest 5 (MD5) and Secure Hash Algorithm 1 (SHA-1).
- 8. Hash values are a very reliable method of authenticating files. It can be concluded with an extremely high degree of certainty that two files sharing the same hash value also share identical content. Based on my training and experience, as well as others in this field, I know it is more likely that two humans would share the same biological DNA than for two files to share the same hash value. If even one bit (the smallest measure of data in a file) of a file is changed, the entire hash value of that file changes completely. As an example that demonstrates the uniqueness of a SHA-1 hash, the likelihood of two files having the same SHA-1 hash value is 2020 article in Live Science, according to Professor Simona Francese, PhD, a forensic scientist and fingerprint expert from Sheffield Hallam University in the United Kingdom, the likelihood of two humans having the same fingerprint is estimated to be:1 in 64,000,000,000.
- 9. For two different files to have the same hash value is called a collision. I know from experience that there have been no documented incidents of a collision involving SHA-1 hash values "in the wild" since its creation in 1995. I am, however, aware of a reported collision involving two files sharing the same SHA-1 value in a lab setting. This was done purposely by engineers at Google in 2017 under controlled conditions for the sole purpose of creating this collision. Even with this knowledge in mind, I am confident that the possibility of a suspected CSAM file reported in a CyberTip having the same hash value as an unrelated, non-criminal file is extremely unlikely. I believe hash value comparison is a highly reliable method of determining

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if two files are the same or different, and that a confirmed hash match between two files is a forensic finding on a par with a DNA match or a fingerprint match.

- 10. ISPs typically maintain a database of hash values of files that they have determined to meet the federal definition of depictions of minors engaged in sexually explicit conduct found in 18 USC § 2256. The ISPs typically do not maintain the actual suspect files themselves; once a file is determined to contain suspected depictions of minors engaged in sexually explicit conduct, the file is deleted from their system.
- 11. The ISPs can then use Image Detection and Filtering Process ("IDFP"), Photo DNA (pDNA), or a similar technology which compares the hash values of files embedded in or attached to transmitted files against their database containing what is essentially a catalog of hash values of files that have previously been identified as containing suspected depictions of minors engaged in sexually explicit conduct.
- 12. When the ISP detects a file passing through its network that has the same hash value as an image or video file of suspected depictions of minors engaged in sexually explicit conduct contained in the database through a variety of methods, the ISP reports that fact to National Center for Missing and Exploited Children (NCMEC) via the latter's CyberTipline. By statute, an ESP or ISP has a duty to report to NCMEC any apparent depictions of minors engaged in sexually explicit conduct it discovers "as soon as reasonably possible." 18 U.S.C. § 2258A(a)(1). The CyberTip line report transmits the intercepted file to NCMEC. Often that occurs without an ISP employee opening or viewing the file because the files hash value, or "fingerprint," has already been associated to a file of suspected depictions of minors engaged in sexually explicit conduct. The ISP's decision to report a file to NCMEC is made solely on the basis of the match of the unique hash value of the suspected depictions of minors engaged in sexually explicit conduct to the identical hash value in the suspect transmission.
- 13. Most Internet Service Providers keep subscriber records relating to the IP address they assign, and that information is available to investigators. Typically, an investigator has to submit legal process (e.g. subpoena or search warrant) requesting the subscriber information relating to a particular IP address at a specific date and time.
- 14. A variety of publicly available websites provide a public query/response protocol that is widely used for querying databases in order to determine the registrant or assignee of

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internet resources, such as a domain name or an IP address block. These include WHOIS, MaxMind, arin.net, and other common search tools.

- 15. The act of "downloading" is commonly described in computer networks as a means to receive data to a local system from a remote system, or to initiate such a data transfer. Examples of a remote system from which a download might be performed include a webserver, FTP server, email server, or other similar systems. A download can mean either any file that is offered for downloading or that has been downloaded, or the process of receiving such a file. The inverse operation, "uploading," refers to the sending of data from a local system to a remote system such as a server or another client with the intent that the remote system should store a copy of the data being transferred, or the initiation of such a process.
- 16. The National Center for Missing and Exploited Children (NCMEC) is a private, non-profit organization established in 1984 by the United States Congress. Primarily funded by the Justice Department, the NCMEC acts as an information clearinghouse and resource for parents, children, law enforcement agencies, schools, and communities to assist in locating missing children and to raise public awareness about ways to prevent child abduction, child sexual abuse and depictions of minors engaged in sexually explicit conduct.
- The Center provides information to help locate children reported missing (by 17. parental abduction, child abduction, or running away from home) and to assist physically and sexually abused children. In this resource capacity, the NCMEC distributes photographs of missing children and accepts tips and information from the public. It also coordinates these activities with numerous state and federal law enforcement agencies. The CyberTipline offers a means of reporting incidents of child sexual exploitation including the possession, manufacture, and/or distribution of depictions of minors engaged in sexually explicit conduct; online enticement; child prostitution; child sex tourism; extra familial child sexual molestation; unsolicited obscene material sent to a child; and misleading domain names, words, or digital images.
- 18. Any incidents reported to the CyberTipline online or by telephone go through this three-step process: CyberTipline operators review and prioritize each lead; NCMEC's Exploited Children Division analyzes tips and conducts additional research; The information is accessible to the FBI, ICE, and the USPIS via a secure Web connection. Information is also forwarded to

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the ICACs and pertinent international, state, and local authorities and, when appropriate, to the ESP.

SUMMARY OF PROBABLE CAUSE

- 19. This case involves the investigation of Nathan Hall, a resident of the Western District of Washington. Between 2015 and 2024, the FBI received multiple complaints about Hall's online activity. In August 2024, FBI obtained warrants to search Hall's home and person for evidence of, among other things, communicating interstate threats and possession of child sexual abuse material. FBI seized multiple digital devices, and the review of these devices is ongoing.
- 20. On July 29, 2024, I received a Cybertip report from NCMEC that was submitted by ESP X reporting that one of its users had uploaded suspected child pornography to its servers. According to X, a review of the account prompted by a June 2024 administrative subpoena seeking subscriber information for this X account resulted in the discovery of apparent child pornography. X submitted a Cybertip report to NCMEC that included the SUBJECT FILES. X also provided the following subscriber information associated with this account:

Username AlexAnderHare17

Nathanhall100@hotmail.com **Email**

360-600-4184 Phone

- 21. X also indicated that it did not view the SUBJECT FILES, so I am seeking authority to open and examine them.
- 22. I know from my training and experience that when X submits a Cybertip, it provides a copy of account content associated with the user that is the subject of the tip. In addition to the files of suspected child pornography, this may include content such as direct messages, postings, and other information that my help identify the user of the account.

CONCLUSION

23. Based on the foregoing, I believe there is probable cause to conclude that evidence, fruits, and instrumentalities of violations of the TARGET OFFENSES, are located within the SUBJECT FILES as more fully described in Attachment A to this Affidavit. I therefore request that the Court issue a warrant authorizing a search of the SUBJECT FILES for the items more fully described in Attachment B and the seizure of any such items found therein.

Special Agent, FBI

The above-named agent provided a sworn statement attesting to the truth of the contents of the foregoing affidavit on the 30th day of January, 2025.

United States Magistrate Judge

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ATTACHMENT A Description of Property to be Searched The following SUBJECT FILES AlexAnderHare17-327816241-2024-07-29-18-15-25-79217672.zip 2Q9n0uXI.jpg provided by X Corp to the National Center for Missing and Exploited Children with CyberTipline Report #197075910, which are stored on an encrypted thumb drive currently located at the FBI office in Bellingham, Washington.

ATTACHMENT B

ITEMS TO BE SEIZED

All information that constitutes evidence, instrumentalities, or fruits of violations of 18 U.S.C. § 2252(a)(2) (Receipt or Distribution of Child Pornography) and 18 U.S.C. § 2252(a)(4)(B) (Possession of/Access with Intent to View Child Pornography) which may be found in the SUBJECT FILES:

- 1. Any visual depiction of minor(s) engaged in sexually explicit conduct;
- 2. Information about the SUBJECT FILES related to the timing or circumstances of their creation and transmission; in any format or media;
- 3. Information concerning the identity of any individuals depicted in the SUBJECT FILES
- 4. Information or data that, including direct messages, postings, photos, or other account content that identifies the user(s) of the X account associated with the SUBJECT FILES.